

Amendments to the Specification:

Please replace the paragraphs on page 4, lines 13 to 18:

This object is realized in accordance with a broad aspect of the invention by a method for encoding a tag with an n-bit binary code ($n \geq 1$), the method comprising:

- (a) associating with the tag one or more predetermined frequency sources that produce known different respective characteristic frequencies; and
- (b) associating with each of said characteristic frequencies a known unique position in the n-bit binary code.

Please replace the paragraph on page 5, lines 18 to 22:

Referring to Fig. 2 there is shown a tag 20 according to the invention that is encoded with multiple frequency sources to generate an n-bit code that is identified by a reader 21. By way of example only, the following description will relate to a 9-bit code, although the principles of the invention can readily be applied for any integer value of n greater than or equal to one.

Please replace the paragraph on page 6, lines 16 to 21:

It should be noted that the frequency sources composing a tag are not necessarily dispersed within a volume. Very small frequency sources can be, for example, mixed in ink and printed on the identified object, such as printing on paper. According to a different example, by mixing the frequency sources with pigments used to color fabrics it is possible to print a hidden tag on fabric (if the pigment used has the same color as the fabric). It should be noted that any number of frequency sources may be printed in this manner.

Please replace the paragraph on page 7, lines 4 to 9:

Fig. 3 is a schematic representation of a tag 30 and a reader 31 that are combined to encode and decode a 3-bit code that is characterized by the presence or absence of three different frequency sources denoted f_1, f_2 and f_3 , which encode respectively the LSB, the second bit and the MSB. The reader 31 detects characteristic frequencies emitted by the tag 30 and compiles a 3-bit code according to the following logic.

Please replace the paragraph on page 8, lines 16 to 20:

Fig. 5 is a flow chart showing the principal operations carried out by a decoder according to the invention. Each bit is decoded successively starting with the LSB corresponding to M=1. If the frequency corresponding to each bit is detected, then the corresponding bit is set to 1. The value of M is then incremented and the process repeated in respect of successive bits in the n-bit code. It should be noted that any number of frequency sources may be decoded in this manner.

Please replace the paragraph on page 8, line 21 to page 9, line 4:

It should be noted that the flow charts illustrated in **Figs. 4 and 5** represent non-limiting exemplary ways of encoding and decoding an *n*-bit code and variations will be apparent to those of average skill in the art. It will also be appreciated that the manner in which the encoder-decoder detects the frequency sources deposited on the tag does not affect the manner in which the n-bit code is decoded. Thus, the encoder-decoder can be configured to selectively receive each characteristic frequency sequentially and to assign a corresponding value to the bit associated therewith. Alternatively, it may be configured to receive all the characteristic frequencies in parallel as a complex signal and to perform frequency separation on the complex signal received from the reader. In this case, the separated frequencies emitted by the tag are recorded so as to compile a list of all unique characteristic frequencies associated with the tag. Subsequent encoding-decoding may then continue as for sequential encoding-decoding. An example of an applicable frequency separation technique is described in above-mentioned US 5,341,099.

Please replace the paragraph on page 10, line 29 to page 11, line 3:

In all exits of the premises frequency readers are positioned in a way that the exit forms at least part of the zone of the reader. That way the readers can decode tags passing in their zone. If the encoding-decoded *n*-bit binary string cannot be located in the list of items authorized to leave the premises, this is considered as a suspected theft.

Please replace the paragraph on page 11, line 17 to page 12, line 2:

Fig. 7 is a flow chart showing the principal operations carried out by a decoder according to another embodiment for keeping track of surgical instruments during medical procedures for improving safety in an operating theater. It is a known problem that in operating theaters surgical

instruments and materials, such as gauze pads, forceps or scalpels, are sometimes left in the patient's body, causing considerable damage to the patient. One way to overcome the risk is having a staff person count the instruments before the doctor begins sewing, making sure everything is accounted for. This procedure is liable to error and can be automated by uniquely marking each item with a tag according to the invention. On moving a surgical instrument to within a working area of the operating theatre the *n*-bit binary code of every surgical instrument can be ~~encoded-decoded~~ and listed in a running list of all the surgical instruments that are in the working area. When leaving the working area, surgical instruments' *n*-bit binary codes are removed from the running list. Upon termination of the surgical procedure the list is checked, ensuring that all surgical instruments are accounted for.